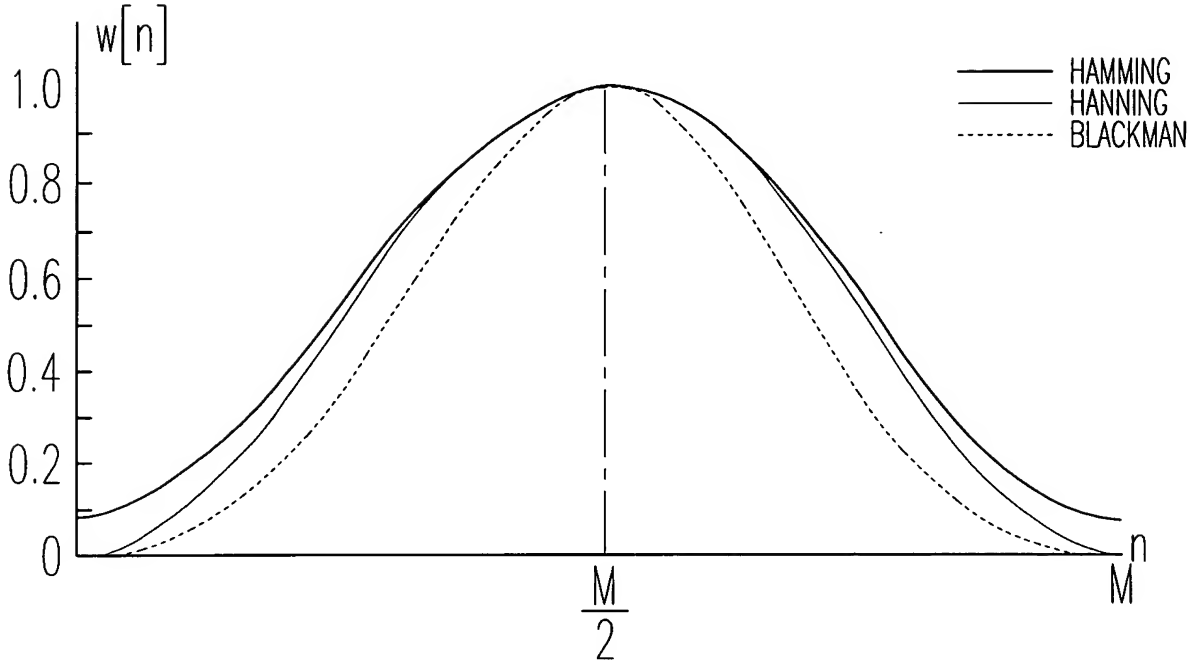


BLACKMAN

$$p(t)=\begin{cases} 0.42-0.5\cos(2\pi t/M) + 0.08\cos(4\pi t/M), & 0<t<M, \\ 0, & \text{otherwise} \end{cases}$$

HANNING

$$p(t)=\begin{cases} 0.5-0.5\cos(2\pi t/M), & 0<t<M, \\ 0, & \text{otherwise} \end{cases}$$

HAMMING

$$p(t)=\begin{cases} 0.54-0.46\cos(2\pi t/M), & 0<t<M, \\ 0, & \text{otherwise} \end{cases}$$

Fig. 1

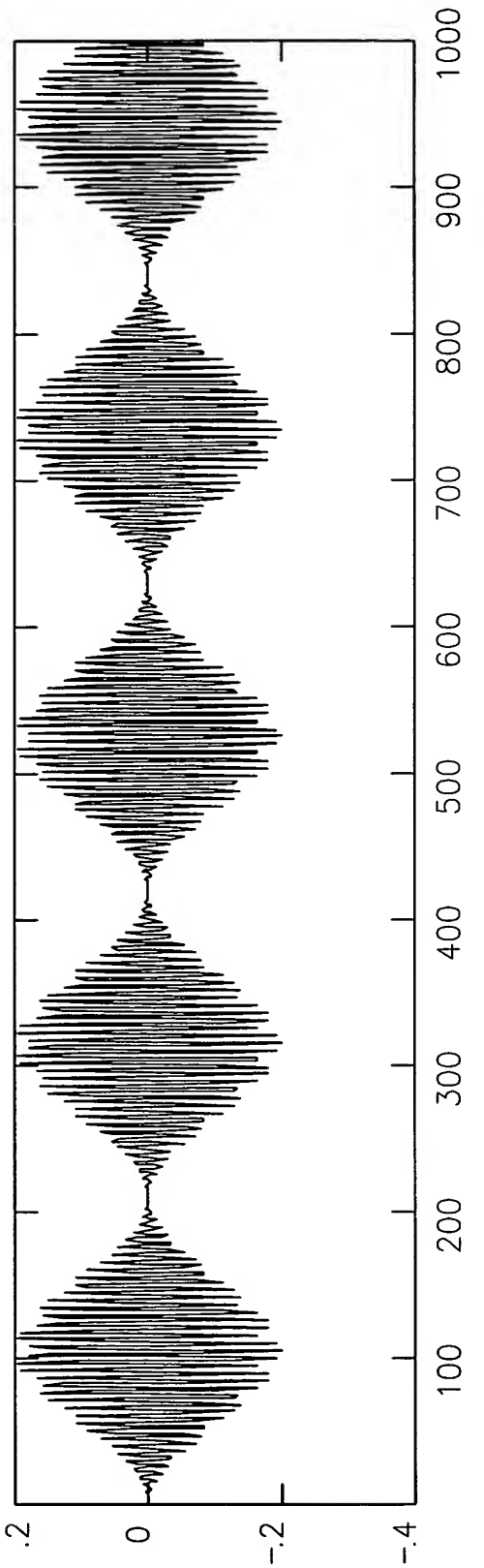


Fig.2A

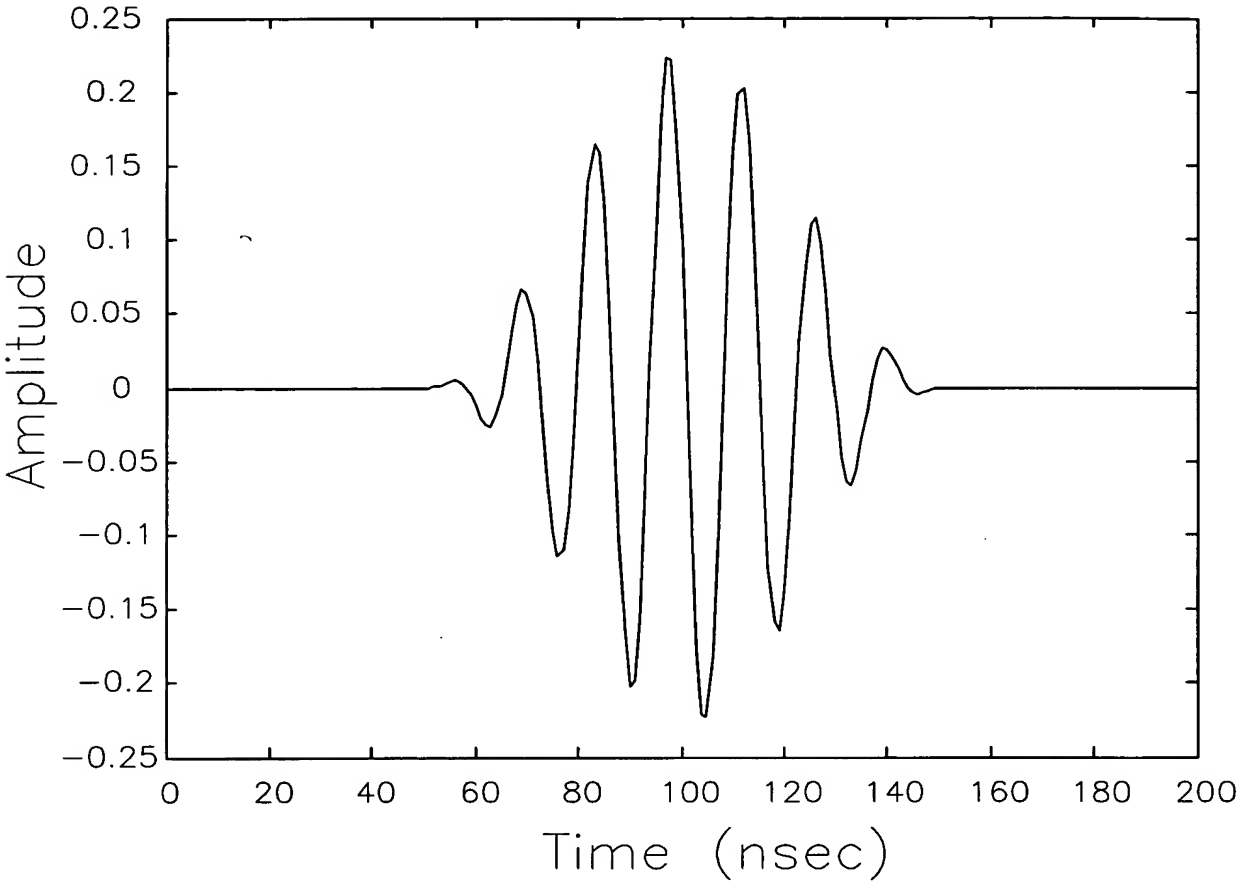

0.25
0.2
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
−0.25
Amplitude
0
20
40
60
80
100
120
140
160
180
200
Time (nsec)

Fig. 2B

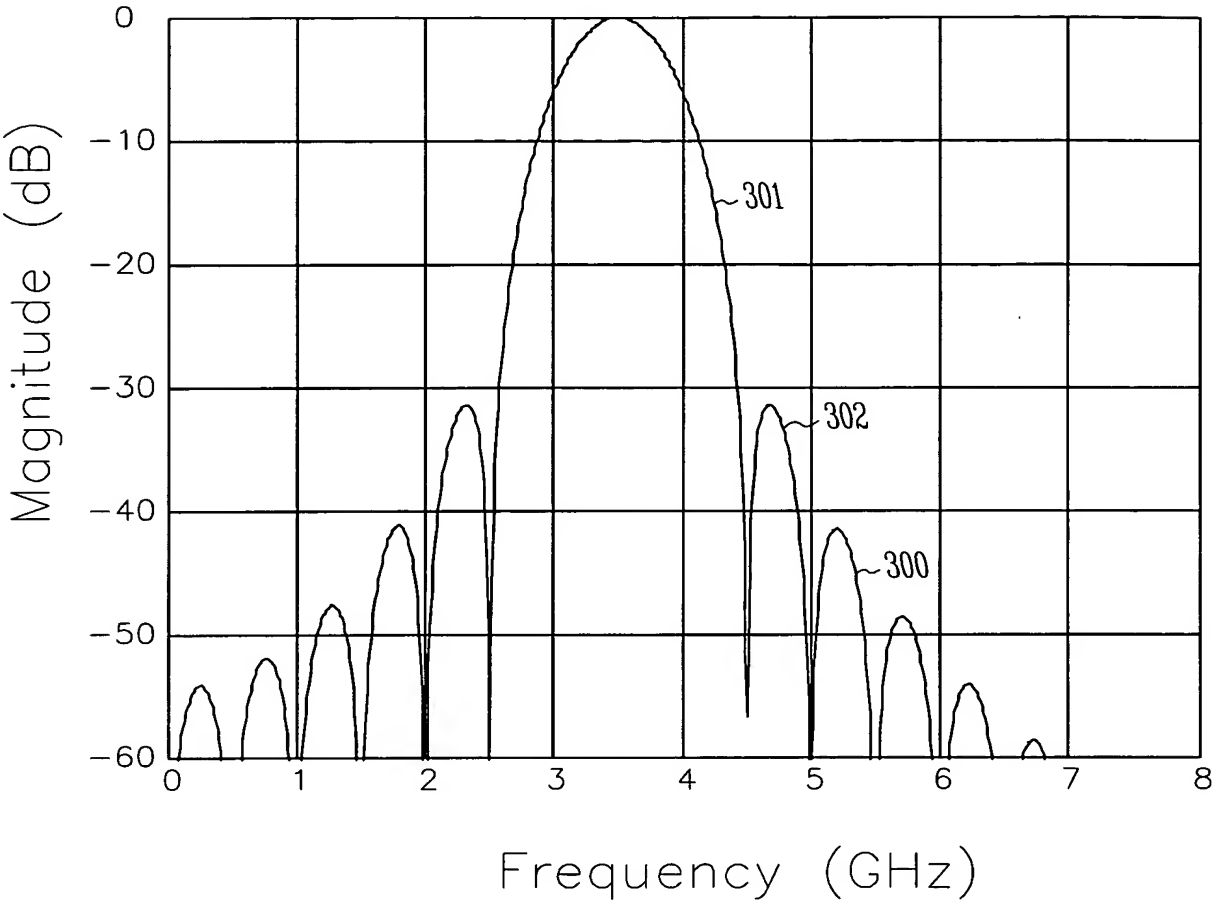

0
-10
-20
-30
-40
-50
-60
Magnitude (dB)
0
1
2
3
4
5
6
7
8
Frequency (GHz)
301
302
300

Fig. 3

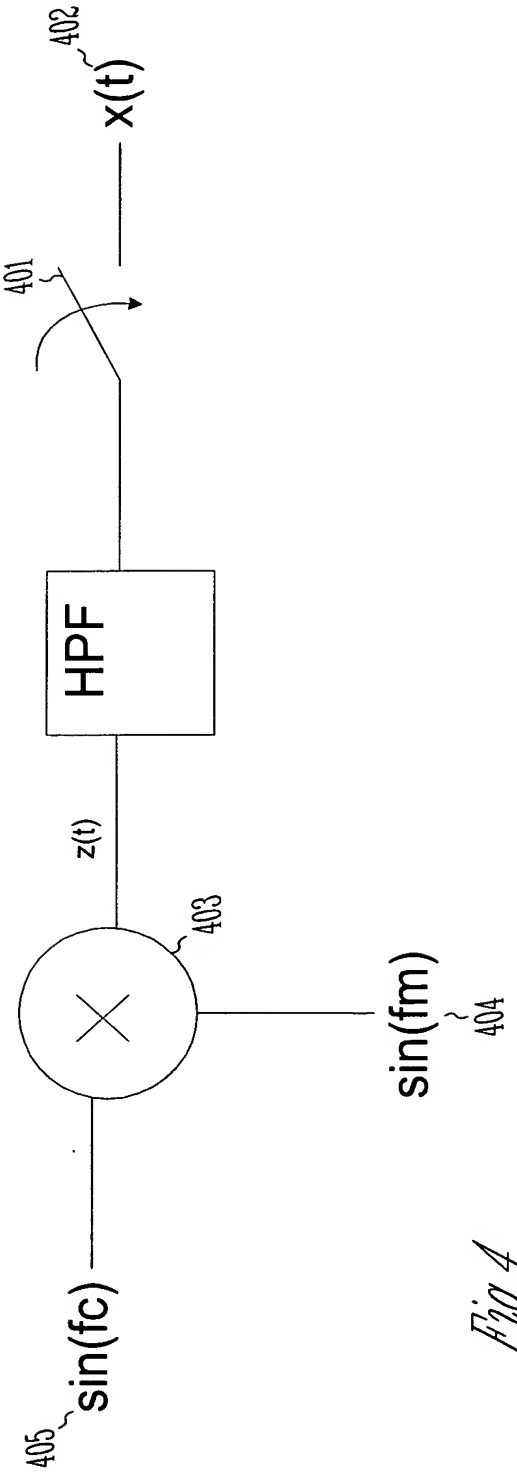

402
x(t)
401
HPF
z(t)
403
sin(fm)
404
405
sin(fc)

Fig. 4

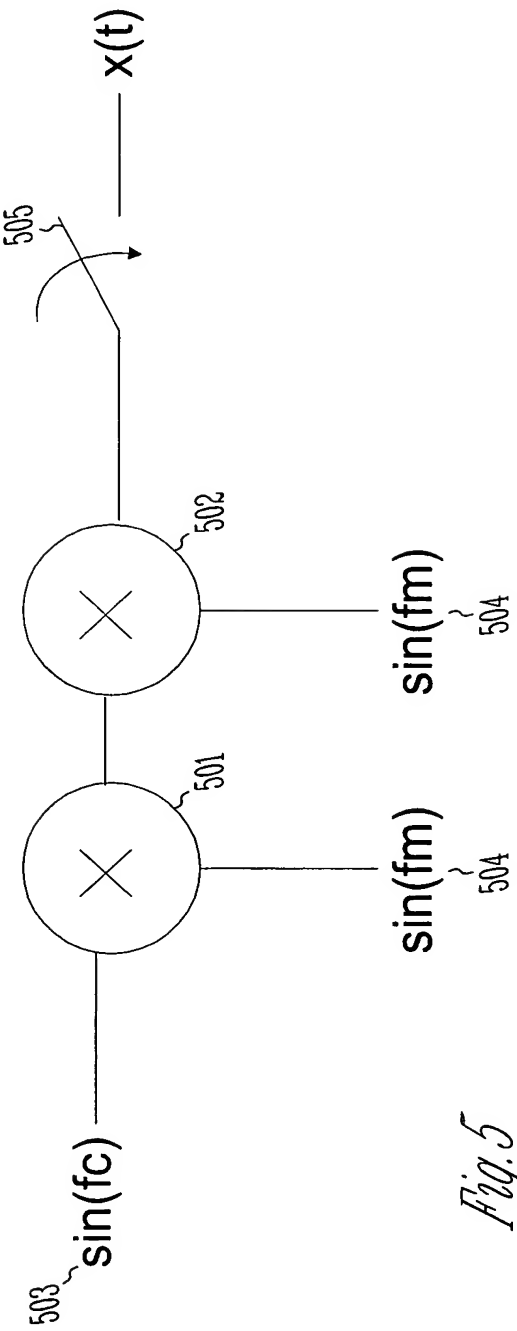
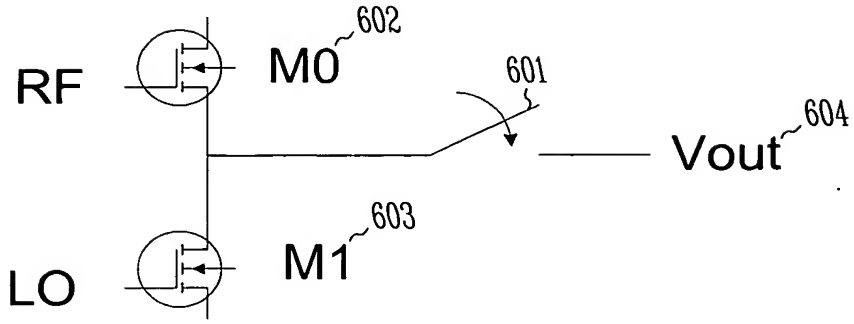

x(t)
505
502
sin(fm)
504
501
sin(fm)
504
503
sin(fc)

Fig. 5


RF
M0
602
601
Vout
604
LO
M1
603

x(t)

Fig. 6

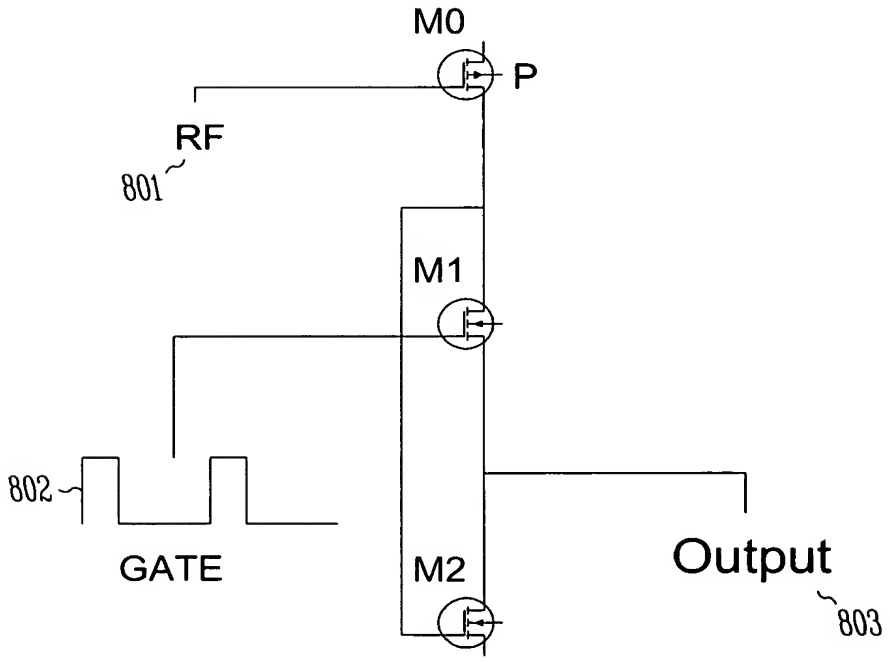

M0
P
RF
801
M1
802
GATE
M2
Output
803

Fig. 8

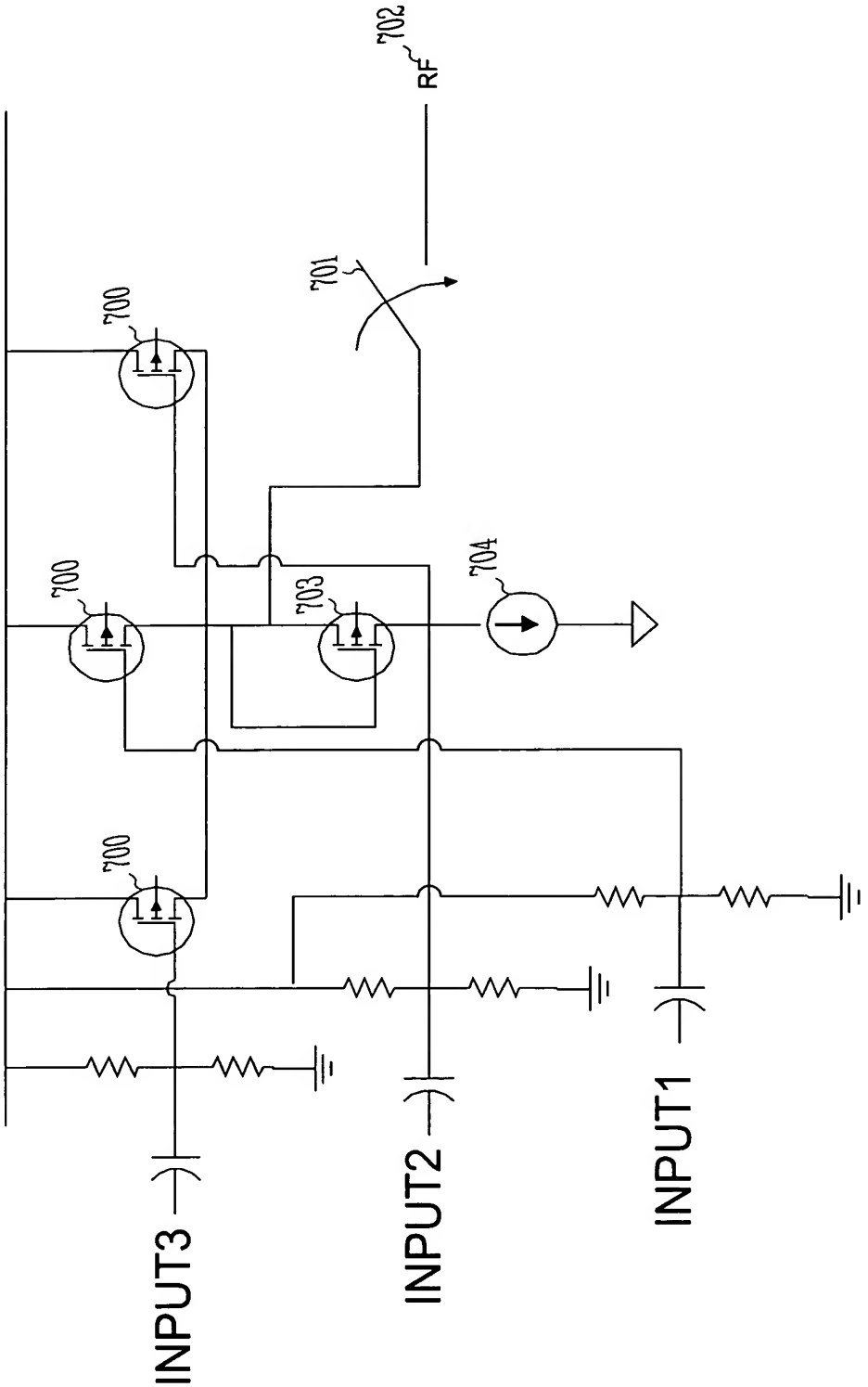


Fig. 7

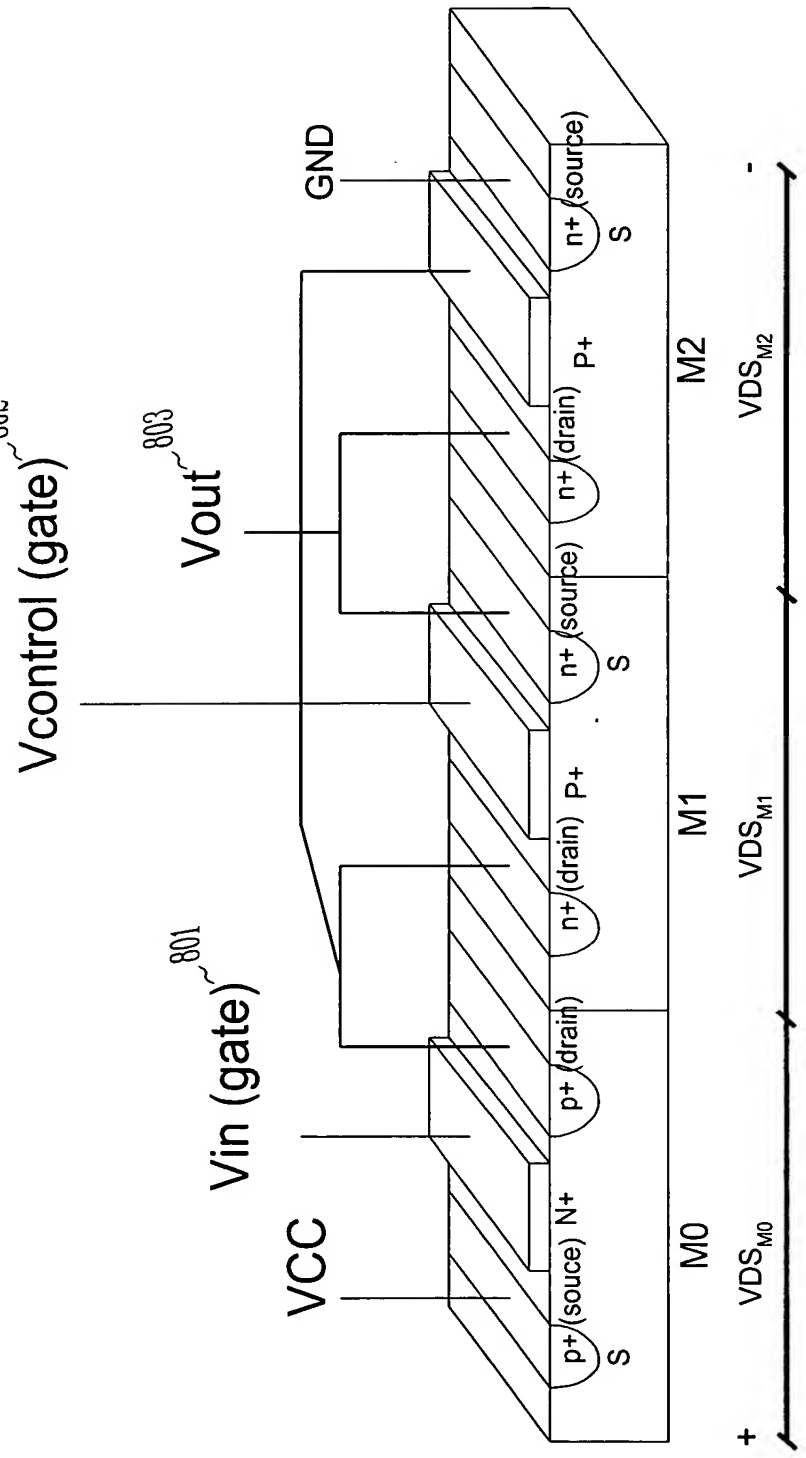

Vcontrol (gate)
802
Vout
803
Vin (gate)
801
VCC
GND
p+/(souce) N+
S
p+ (drain)
n+/(drain) P+
n+ (source)
S
n+/(drain) P+
n+ (source)
S
M0
M1
M2
VDS$_{M0}$
VDS$_{M1}$
VDS$_{M2}$
+
-

Fig. 9

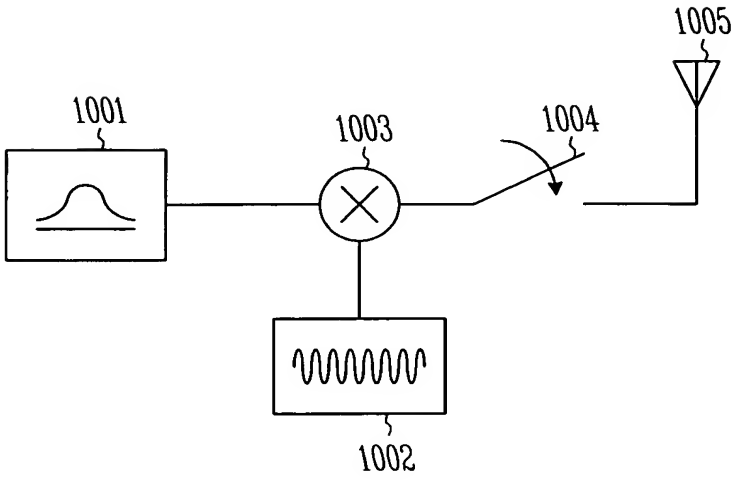


Fig. 10